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No 3

apoplexy

#9 1817

A dissertation
on
Apoplexy

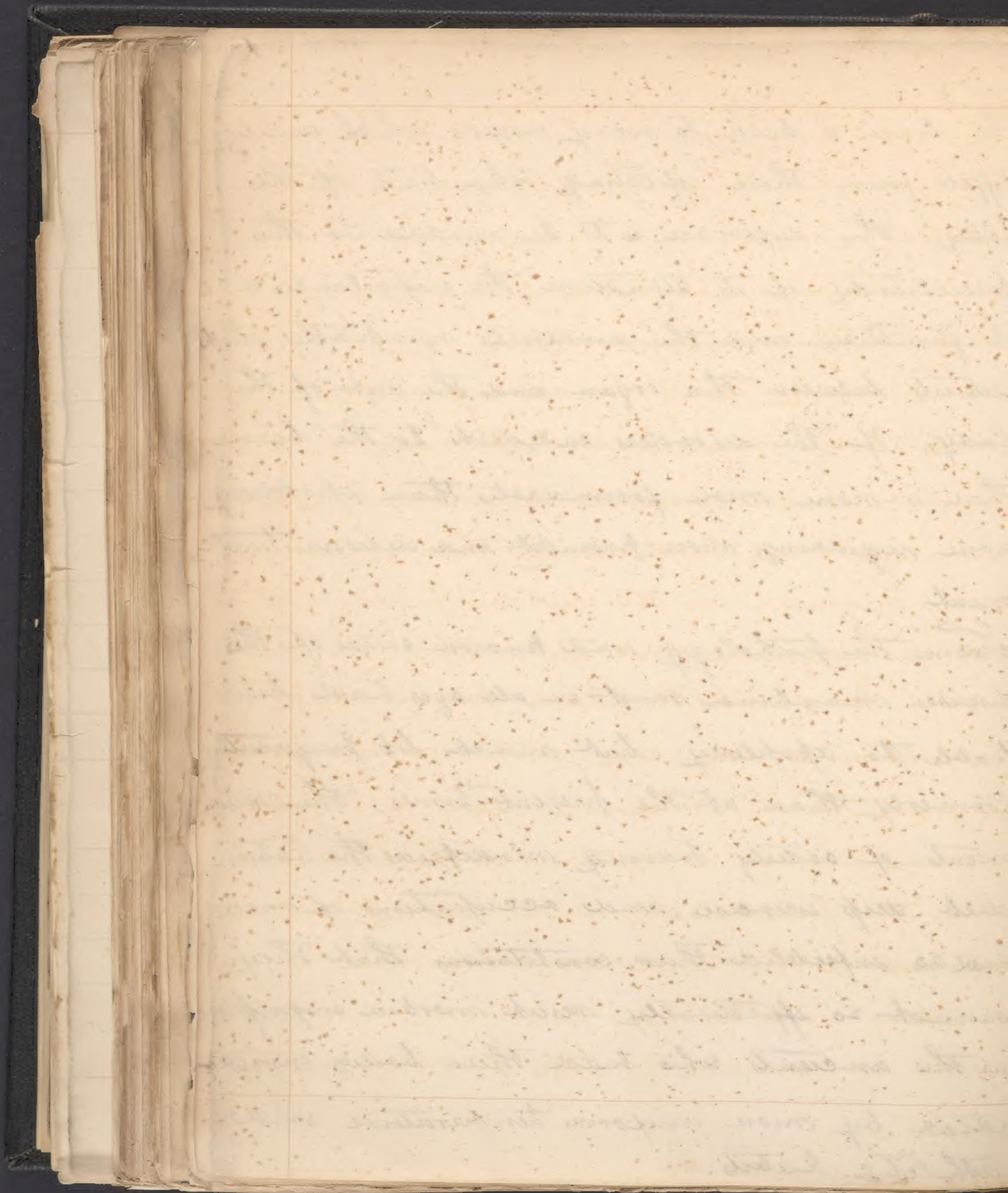
by Solomon Williams

1817 -

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The brain is liable to many diseases which widely differ from those affecting other parts of the body. This difference is to be ascribed to the peculiarity of its structure, the importance of its functions and the universal sympathy which subsists between this organ and the rest of the body. Of the disorders incident to the brain there is none more formidable than apoplexy, none requiring more prompt and decisive treatment.

From the pathology and known cause of the disease mankind must in all ages have been liable to apoplexy; but much less frequently formerly than at the present time. The refinements of society having modified the habits, diet, sleep, exercise, and occupations of men have so enfeebled their constitutions that they cannot so effectually resist morbid impressions as the ancients who had their bodies invigorated by more uniform temperature and athletic habits.



Apoplexy is a disease in which the whole of the external and internal senses, and all the voluntary motions are in some degree abolished, while respiration the action of the heart and arteries continue uninterrupted.

It commonly affects persons advanced in age, having large heads and short necks, of a corpulent habit, and who have lived an indolent life, and particularly those persons who have indulged in the free use of ardent spirits, and of indigestible and stimulating articles of food. It is apt to attack persons after the suppression of any long continued evacuation, as from the hemorrhoidal vessels in men, and in women from a cessation of the catamenia. When the predisposing causes exist, a peculiar position of the head conjoined with a sedentary and stercious life may act in such a manner as often to bring on the disease.

In some instances it attacks persons without any peculiar conformation of body, of intemperate habits and no evident predisposition.

From the different seats of the disease it has been properly divided into idiopathic and sympathetic.

When it is a primary affection of the head the attack is most frequently preceded by some precursory symptoms, as giddiness, dimness of sight, drowsiness, loss of memory, faltering of the tongue *trinitus aurium* &c.

The paroxysm is known by the sudden falling of the patient, at which time the face becomes red and swollen, the veins of the head, the temples, the eyes and the neck appear turgid; the head feels hot the eyelids are half open and rigid, the eyes are prominent and fixed, with a dilatation of the pupils.

Respiration is hurried short and stertorous.

the pulse is quick, full, slow, and strong - In some instances a grinding of the teeth and among the most distinguishing symptom is a deep coma. When these symptoms continue for a time, the pulse becomes languid the respiration more laborious until it ceases altogether. In sympathetic apoplexy the attack is more gradual, it is preceded by frequent fits of incubus, the face is pale and often swollen, the pupils of the eyes are either dilated, or contracted, the veins are depressed, the pulse is weak irregular and intermittent, respiration is laborious and stertorous, the surface of the body is cold and flaccid exhibiting a prostration of the powers of the system. The exciting causes of idiopathic apoplexy are those which cause a determination of blood to the vessels of the head as violent passions of the mind as joy anger &c

the body of the animal is composed of a soft
substance which is called the pulp of the eye
and is surrounded by a thin membrane called the
conjunctiva. The eye is also surrounded by a
thin layer of fat called the orbital fat. The
eye is connected to the brain by a long
nerve called the optic nerve. The optic nerve
is composed of a bundle of nerve fibers which
carry the visual information from the eye to the
brain. The optic nerve is surrounded by a
thin layer of fat called the optic nerve sheath.
The optic nerve sheath is connected to the
dura mater of the brain. The optic nerve
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connected to the dura mater of the brain.

L... .., as opposed to the
... .. the circulation may produce
the certain portions of the head by fa-
... .. the effect of arterial and impeding
the escape of venous blood from the head
may often excite the disease. It is sometimes
caused by an accumulation of serum; from
an increased "exhalation" from the minute
vessels of the head.

Mechanical injuries done to the head may
excite apoplexy, either by the influence of con-
cussion on the brain, by a fragment of bone
being forced in the cranium; by an effusion
of blood coagulating ^{limbs} or pus, under the cranium;
between the membranes of the brain, or in the
substance of the brain; or in the ventricles
or it may happen in consequence of the infla-
mmation which succeeds the injury.

There are certain chemical substances, which

exert great influence on the system and by their sudden and diffusible stimulating effects, have been long enumerated as causes of apoplexy.

Exposure of the naked head to the rays of the sun in warm climates, has by imparting unusual warmth to that part increased the force and velocity of the circulation, so as to produce an instantaneous attack.

The use of a warm bath and the heat of a crowded room, often excite the disease, especially in imitable habits where there is a prethoric disposition of the blood vessels. These are among the most important of the exciting causes, when it is a primary affection of the head.

The occasional causes of sympathetic apoplexy may be referred to those which act directly on the stomach to others which affect

it through the medium of some part, or of the whole system, and from its indissoluble association with the brain, causes a reaction in that viscus as to disturb its functions and there to produce apoplexy.

Among the most frequent of the exciting causes which ^{act} directly on the stomach, may be ranked mechanical distension from an accumulation of food, the swallowing of indigestible articles, drinking too copious a draught of ardent spirits or taking some powerful narcotic into the stomach.

(1) Causes which secondarily affect the stomach and by that means the brain may be enumerated. Certain diseased conditions of the liver, the uterus, and intestinal canal. A gouty diathesis of the constitution by its concomitant gastric derangement, is not an uncommon cause of this species of apoplexy.

Excessive venereal indulgence weakens the powers of digestion, increase the irritability of the nervous and arterial system, so as to produce the most violent form of this disease.

When a sufficiency of food is taken into the stomach to induce the disease, it first distends its coats, causes an enlargement of its diameter by which it presses on the vena cava ascendens obstructs the expansion of the lungs, thereby distending the vessels of the head, destroys the office of the brain producing all the symptoms of apoplexy.

The poisons which excite the disease are either stimulant or sedative, and may be taken in such quantities as to destroy life in a very short time. By the habitual use of Stimulating and narcotic

substances the chiropædic viscera are so much changed in their office, as to impair the energy of the nervous system, so that life is eventually destroyed by an apoplectic stroke.

From the similarity in the operation and effects of the various narcotics, an account of the phenomena and consequent effects resulting from too large a dose of opium, may suffice to distinguish that form of the disease which arises from the use of vegetable poisons.

Opium when taken into the stomach first stimulates the part to which it is applied from whence the impression is communicated to the heart and arteries, the temperature of the body is increased, there is a diminution in all the secretions and excretions except that by the skin which

which is augmented, it creates great thirst
the tongue and passages become dry and parch-
-ed, the mind continues at this period se-
-rene, but there is often a fitful exalta-
-tion of spirits: after this state of excitement
has continued for twenty or thirty minutes,
the action of the sanguiferous system is dim-
inished, as is evinced by the slow irregular
pulse, a prostration of strength comes on,
accompanied by vertigo, delirium, stupor,
and an irresistible propensity to sleep, fol-
-lowed by a loss of voluntary motion
and if not stopped in its operation life
is extinguished.

Among the occasional causes which act
secondarily on the stomach, may be
ranked that condition of the liver in
which there is a superabundant secretion
of bile which reimpregnates from the

lucum into the stomach, often creates
in action the latent predisposition to the
disease. Doctor Mather whose opinion is
entitled to the highest respect, several
years since met with a case in prac-
tice which fully establishes this fact.
A boy in fishing on the Spuickill
bridge, was suddenly seized with all
the symptoms of apoplexy, in addition
to these there was so great an atony of
the lower jaw, that his mouth was
constantly open. The doctor in ex-
-amining his tongue or posterior fauces
saw by a kind of eructation, bile
in the patients mouth; and that the
disease was produced by the presence
of bile, was fully established, by the
immediate relief which the patient ex-
-perienced from the operation of an emetic.

Suppressed secretions by inducing irregularity of action, or plethora, in the bloodvessels are frequent exciting causes of the disease.

The prognosis is to be drawn from a consideration of the predisposing causes, of the antecedent symptoms, of the manner in which it was excited, from the mild or aggravated form of the attack, from the effects of remedies employed and the duration of the paroxysm, together with the strength of the constitution.

To avoid an attack when a predisposition exists in the body, and when the disease has been removed, to fortify the system against a future return, are circumstances of importance in the management of the disease.

When a predisposition is known to

to exist. The temperature of the body should be regulated according to the season of the year, and every change in the atmosphere. — The diet should be nutritive, and not stimulating and taken in small quantities, at short intervals. The exercise should be moderate, so as to induce perspiration, without fatigue, the patient should abstain from all stimulating drinks and avoid as much as possible mental agitation. After the paroxysm has subsided to prevent the recurrence of an attack the exciting causes are to be avoided. Every condition of the body which favours a determination of blood to the head must be ~~obviated~~ ^{prevented}, overdistention of the stomach and constipation of the bowels must be prevented, the mind should be engaged about some amusing employ-

-playments so as to suspend the excitability of the Gorgions and prevent a reaction on the brain. If free use of Tobacco, by increasing the irritability of the system and by its sedative effects inducing debility, and increasing the excretion from the salivary glands should be prohibited where there is a constant tendency to a plethoric state of the vessels in the head, setons on the scalp, or issues in the back of the neck, are highly proper, in every instance where a fit is threatened bloodletting is the only remedy on which we can depend.

-sections of the brain have been made in various parts of the arteries and veins of the head have been found in a state of inflammation the sinuses of the brain have been enlarged, and in many

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instances an extravasation of blood has been observed in the substance of the brain or within the ventricles.

In those who die of sympathetic apoplexy, the arteries contain less and the veins more blood than in idiopathic apoplexy. The dura mater has lost its transparency, the pia mater and plexus choroides are pale. The brain is altered in its consistence, becoming flaccid. The left auricle and ventricle of the heart with the arteries are found empty, the pulmonary organs are engorged with blood. The stomach is much inflamed, and the intestines generally distended.

The cure of idiopathic apoplexy from the violence and fatality of its attack, requires the immediate and skilful application of remedies.

Every mechanical impediment to the circulation of the blood is to be removed, the patient should be placed in a well ventilated apartment, after this as copious, and sudden a depletion, must be made as the strength of the patient will bear, the most speedy and efficacious method of accomplishing this, is by means of bloodletting from the temporal arteries or from the veins of the arm.

By abstracting blood in this disease, the quantity of fluids in the vessels of the head are diminished, the undue impetus and irregularity in the action of the arteries are corrected, moreover by allowing a contraction in the diameters of the vessels the pressure from overdistension is removed, and the functions of the brain are more or less restored.

After the system is prepared by blood-letting for the action of other remedies drastic cathartics, and such as are quickest in their operation, seem highly indicated. By evacuating the alimentary canal the quantity of circulating fluids is diminished, and by their local stimulus, they occasion an afflux of blood to the intestines, and thereby cause a derivation from the head.

The purgative which answers best is the sulphat of soda, in an infusion of senna or the latter article combined with jalap, or aloes.

To answer the same end nearly and to assist their operation, strong enemata should be frequently administered.

When by repetition the vascular

system is so much emptied as not to admit of a general top of blood, the scarification, and cupping, glap to the occiput, with leeches to the temples, by unloading the superficial vessels of the scalp, will prove highly useful.

The hair being removed from the head, a large blister should be applied over the whole of the scalp, and sinapisms to the extremities, which by operating as counterstimulants are very serviceable.

When the patient's strength will admit, an erect posture should be preferred, as it impedes the ascent of arterial, and favours the descent of venous blood: when this is inadmissible the patient should be kept in a recumbent posture, so as not to make pressure on the vessels of the neck.

If these measures are complied with promptly and pursued to a proper extent, they are calculated to do all the good practicable in this form of the disease.

Sympathetic apoplexy as originating from different causes, and occurring often in an opposite state of the system; demands a diversity of remedies. After having premised the loss of blood, which is in many cases admissible and often absolutely necessary, we should immediately resort to emetics, which are indicated from a combination of symptoms which exists in an apoplectic paroxysm, and from the happiest effects resulting from a spontaneous vomiting whenever it has occurred. To remove the exciting cause and equalize the action of the system are the purposes for which they are prescribed.

When the excitability of the system is such that vomiting can be produced by taking an emetic a large quantity of crude and indigestible matter is evacuated by the operation. At this time a new action is excited in that viscus, in which a healthy tone is restored to it, and by determining the fluids to the surface of the body, the lungs are relieved of an accumulation of blood, the respiration is rendered more free and the action of the heart and arteries more natural. By the mechanical effort of vomiting the diaphragm and abdominal muscles in pressing on the liver spleen and pancreas will often propel the accumulation of blood from these parts and thus remove obstructions which are often the primary link in the numerous morbid associations on which the disease depends.

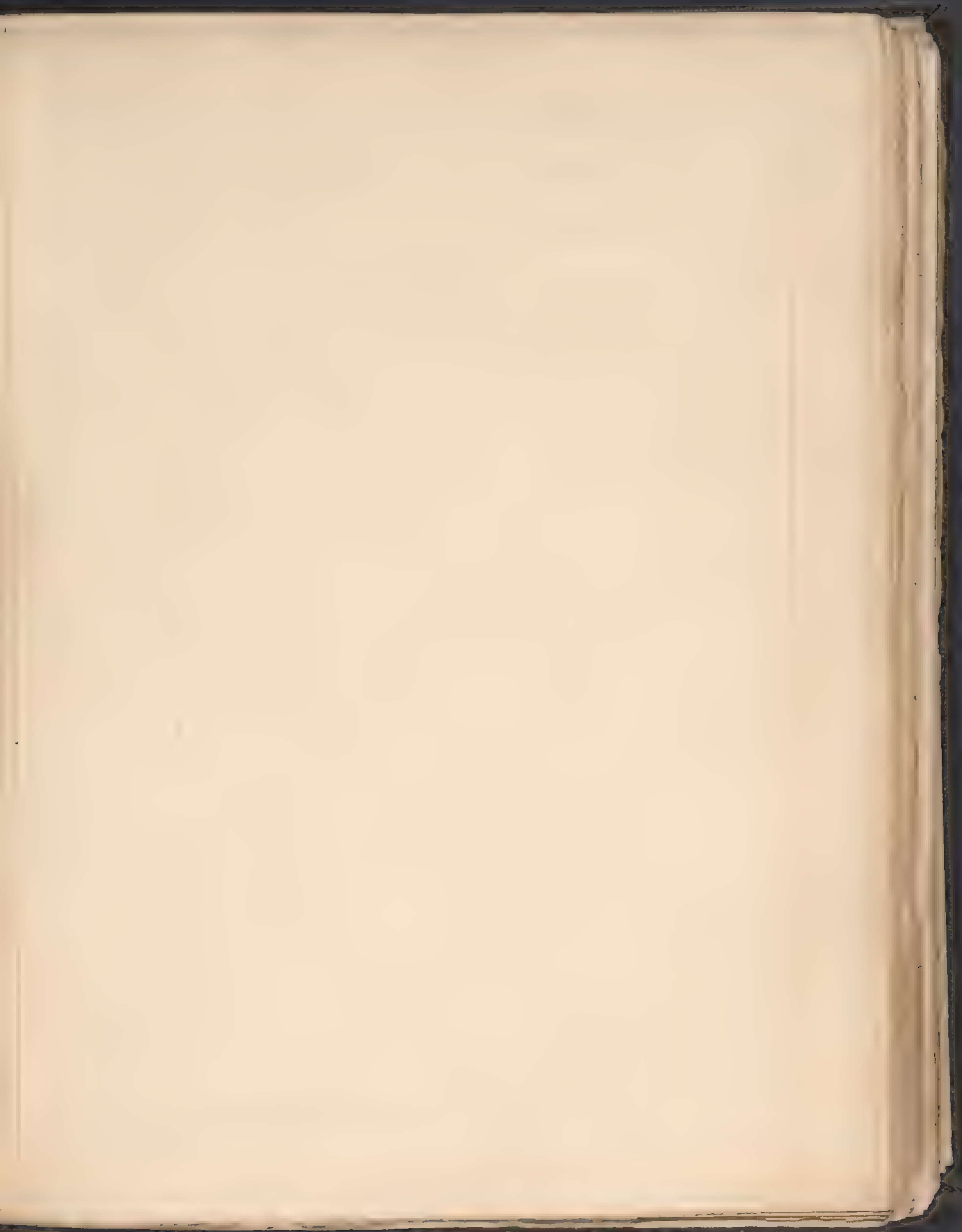


Since the disease is now in the
 stage of suppuration, it will be the same
 to apply the same treatment, and
 to use the same means as before. If
 it is one in which the vascular system is
 in a manner similar, excited as is char-
 acterized by the depressed condition of the
 pulse, and an undue determination of blood
 to the head and thoracic vessels,

After the operation of an emetic a cathartic
 of ~~the~~ submuriat of mercury, and rhubarb,
 should be given to evacuate the alimentary
 canal more thoroughly, and thereby remove
 a source of much irritation, and to aid
 its action strong cathartics should be ad-
 ministered. Blisters and emopisms should
 be applied and where one side is particu-
 larly affected they should be placed on that
 which is least injured.

at this period of the disease local bleed-
ing is necessary and when apoplexy
has come on in consequence of a suppression
of hemorrhoids, or epistaxis, the application
of leeches to the nostrils, or hemorrhoidal
veins, should not be neglected.

The exciting cause of the disease being re-
moved, from the effects of pain and the use
of the various ^{remedies} the system will be found in
many instances reduced below the standard
of health. In this state Tonics will be found
indispensable, especially in that species of the
disease which is consequent, to the use of
stimulating drinks, and they should be
graduated so as to invigorate the system,
without inducing plethora. The Tonics
which answer this indication best are the
quapia, columbo, gentian, or the chalybeate
preparations, in combination with rhubarb.



When the disease has arisen in consequence of opium or any other narcotic being taken into the stomach, the matter should be evacuated as soon as possible which may sometimes be done either with a large dose of the Sulphat of zinc - Zarcaviza antimony, or Ipecacuanha or by titillation of the posterior fowces with a feather. When from the exhausted vitality of the stomach, these measures fail, an instrument which has been introduced into practice in the United States by Doctor P. S. Physick, may be employed to extract laudanum, or any poisonous substance from the stomach: after which health may be restored by means of stimulants accommodated to the excitability of the system. ^{2d} Carbonat of ammonia, or orange and water injected into the stomach, are very proper remedies, clysters of turpentine,



and gum araback, are in this state very useful. - frictions and stripes together with sinapisms, blisters and warm fomentations, in acting as excipients, are doubtless efficacious remedies in this atonic condition of the body.

A few months ago the state
of the country was very
different from what it is
now. It was a very
different country and the
people were very different.

